

COMBINED DECLARATION AND POWER OF ATTORNEY
IN ORIGINAL APPLICATION

Attorney Docket No.
DVT-114J

I, a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; that

I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the invention entitled: **HIGH POWER MODULATOR** described and claimed in the specification of U.S. Serial No. **09/479,982** filed **January 10, 2000**, that I understand the content of said specification, including the claims, that I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application, that I acknowledge my duty to disclose information of which I am aware which is known to be material to patentability in accordance with 37 CFR 1.56, and that I have reviewed and understand the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration, and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows: **None**.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Joseph S. Iandiorio	Kirk Teska	Jason D. Shanske	Bruce E. Kameron	Thomas E. Thompkins, Jr.
Reg. No. 23,095	Reg. No. 36,291	Reg. No. 43,915	Reg. No. 36,181	Reg. No. 47,136

Address all telephone calls to the above named attorneys and/or agents at (781) 890-5678.

Address all correspondence to Iandiorio & Teska, 260 Bear Hill Road, Waltham, MA 02451-1018.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of 1st or sole inventor
Marcel P.J. Gaudreau

Inventor's signature

Date

7/18/01

Residence
151 Grove Street, Lexington, Massachusetts 02420

Citizenship
USA

Post office address
151 Grove Street, Lexington, Massachusetts 02420

Full name of 2nd inventor
Michael A. Kempkes

Inventor's signature

Date

18 JUL 01

Residence
31 Boston Road, Westford, Massachusetts 01886

Citizenship
USA

Post office address
31 Boston Road, Westford, Massachusetts 01886

Full name of 3rd inventor
Timothy J. Hawkey

Inventor's signature

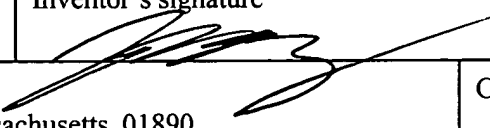
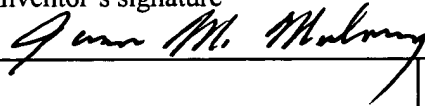
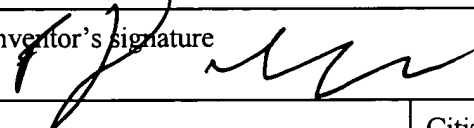
Date

7/19/01

Residence
198 Concord Road, Lincoln, Massachusetts 01773

Citizenship
USA

Post office address
198 Concord Road, Lincoln, Massachusetts 01773

Full name of 4th inventor Jeffrey Casey	Inventor's signature 	Date 2/18/01
Residence 2 Olde Lyme Road, Winchester, Massachusetts 01890		Citizenship USA
Post office address 2 Olde Lyme Road, Winchester, Massachusetts 01890		
Full name of 5th inventor James M. Mulvaney	Inventor's signature 	Date 18 July 01
Residence 30 Jericho Hill Road, Southborough, Massachusetts 01772		Citizenship USA
Post office address 30 Jericho Hill Road, Southborough, Massachusetts 01772		
Full name of 6th inventor Peter A. Dandrige	Inventor's signature 	Date 19 July 01
Residence 13 Kensington Park, Lynn, Massachusetts 01902		Citizenship USA
Post office address 13 Kensington Park, Lynn, Massachusetts 01902		
Full name of 7th inventor	Inventor's signature	Date
Residence		Citizenship
Post office address		
Full name of 8th inventor	Inventor's signature	Date
Residence		Citizenship
Post office address		



26. The modulator of claim 19 wherein each secondary winding of the transformer controls a respective plurality of switches.
27. The modulator of claim 19 wherein at least one of the plurality of switches comprises an avalanche-rated field effect transistor.
- 5 28. The modulator of claim 19 wherein at least one of the plurality of switches comprises an insulated gate bipolar transistor.
29. The modulator of claim 19 wherein at least one of the plurality of retriggerable drive circuits comprises a Zener diode connected in series with a field effect transistor.
- 10 30. The modulator of claim 19 wherein at least one of the plurality of retriggerable drive circuits comprises a bipolar voltage limiting means.
- (once amended)*
31. ¹ A method of switching a signal, the method comprising the steps of:
- a) applying an input signal to a primary of a transformer;
 - b) inducing a voltage in a plurality of secondary windings of the transformer in response to the input signal; ~~and~~
 - 15 c) switching, substantially simultaneously, each of a plurality of switches that are electrically controlled by a respective one of the plurality of secondary windings of the transformer, in response to the single input signal; *and*
- ~~32. The method of claim 31, further comprising the step of maintaining each of the~~
20 ~~plurality of switches in a substantially conducting state after termination of the~~
~~input signal.~~
33. The method of claim 31, further comprising the step of applying a reset input signal to the single primary winding of the transformer.
34. A modulator comprising:

TECHNOLOGY CENTER
AUG 30 2001
2800

RECEIVED